Note

Cardiastethus luridellus Fieber (Hemiptera: Heteroptera: Anthocoridae), a Non-Indigenous Anthocorid Discovered in Oregon

A specimen of Cardiastethus luridellus Fieber (Anthocoridae) was recovered on 26 June, 2000, from a Lindgren funnel trap placed by the Oregon Department of Agriculture at businesses importing solid-wood packing material (SWPM) in Portland, Multnomah County, Oregon. The trap was baited with an ultra-high release ethanol lure. Described from Pennsylvania (Fieber 1860), this bug remained known only from the original description with the type from Pennsylvania until Lattin (1999a) collected it from a dead-leaf cluster of a newly fallen oak tree in west-central Michigan. All earlier literature records only repeated the original description (Blatchley 1926, Torre-Bueno 1930, Henry 1988). Lattin (1999a) suggested that adult C. luridellus fed on the psocids and other small arthropods found in the dead-leaf clusters. The absence of nymphs in the leaf clusters suggests that other habitats, including subcorticular habitats, might be utilized. The occurrence of this species from a chemical-baited trap at a site where solid wood products were received, far west of the known range of the bug, indicates that Cardiastethus luridellus is non-indigenous in Oregon. Other introduced species of Anthocoridae also known from Oregon include Anthocoris nemoralis (Fabricius), Dufouriella ater (Dufour), Lyctocoris campestris (Fabricius), Orius minutus (Linneaus), Xylocoris cursitans (Fallén), and Xylocoris galactinus (Fieber). (Henry 1988; Lattin et al. 1989, 1999b, 2000; Lattin unpublished; T. Lewis, personal communication 2000).

Lindgren funnel traps have been placed at sites in Oregon and Washington receiving imported wood and other wood products since 1996, to detect exotic insect species not known from the region (Mudge et al. 2001). These traps are baited with several types of lures to detect a variety of wood boring insects. Mudge et al. (2001) reported eight exotic species of wood-associated Coleoptera and Hymenoptera from these surveys. The attraction of a predatory bug to one of these traps may provide a link between the bug and the potential prey attracted to the same traps. Several Anthocoridae have been shown to be attracted to potential prey or to compounds released by plants being attacked by herbivorous insects (e.g., Lattin 1999b, 2000).

Torre-Bueno (1930) provided a key to the two species of Cardiastethus known to occur in the northeastern United States. Cardiastetlus luridellus is a mostly shining species with distinct pale pubescence on the dorsum and a few longer setae along the edge of the pronotum. The matte-like appearance of the clavus and adjacent portion of the corium in contrast to the otherwise shining dorsum are characteristic. There is a vague fuscous vitta along the apical portion of the cuneus where it contacts the membrane. The membrane is uniformly fuscous except for a narrow portion adjacent to the apex of the cuneus. Only the outer vein of the membrane is distinct plus a trace of the inner-most vein, the two middle veins are not apparent. This is a small anthocorid (2.9 mm). Cardiastethus pergandei Reuter, the other species in Torre-Bueno's key, is smaller (1.75 mm) and is known only from the type from Washington, D.C. The Oregon specimen of C. luridellus has been deposited in the collections of the Oregon Department of Agriculture, along with other material from this survey.

Some of the insects from these traps are indigenous to eastern North America, while others are exotic species previously known to be established in that region. The discovery of a heteropteran native to the eastern United States adds further weight to concern about the continuing flow of eastern North America insects via the open conduit of solid-wood packing material and the potential of economic and ecological consequences for western North America.

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